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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/816,012	03/31/2004	Masao Teraoka	F-8196	9549
28107	7590	11/07/2005	EXAMINER	
JORDAN AND HAMBURG LLP 122 EAST 42ND STREET SUITE 4000 NEW YORK, NY 10168			BONCK, RODNEY H	
			ART UNIT	PAPER NUMBER
			3681	

DATE MAILED: 11/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/816,012

Applicant(s)

TERAOKA, MASAO

Examiner

Rodney H. Bonck

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 October 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-43 is/are pending in the application.
- 4a) Of the above claim(s) 3,5,7,9,12,14,17,19,21,23 and 25-41 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4,6,8,10,11,13,15,16,18,20,22,24,42 and 43 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 03/31/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

The following action is in response to the election received October 6, 2005 and is a first action on the merits of the claims directed to the elected embodiment.

Claims 3, 5, 7, 9, 12, 14, 17, 19, 21, 23, and 25-41 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on October 6, 2005.

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

Receipt is acknowledged of the Information Disclosure Statement filed March 31, 2004. The cited document has been considered.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 2, 4, 6, 8, 10, 11, 13, 16, 18, 20, 22, and 42 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. These claims refer to a "planetary gear" and "planetary carrier". The elected embodiment, however, is not a planetary gear arrangement. By definition, planetary gearing consists of an epicyclic gear train, *i.e.*, a system in which at least one of the gear wheels has an axis that itself revolves about another fixed axis. Thus these claims directed to the elected embodiment are inaccurate in referring to a "planetary gear" and "planetary carrier". Additionally, claim 4 appears to repeat a limitation already included in claim 2, from which claim 4 depends. Specifically, see lines 7-8 of claim 2 and lines 5-6 of claim 4. In claim 6, the expression "provided to interfere to rotation" is not understood. In claim 10, "the one of the pair of members", "the support body side", and "the direction" each lack a proper antecedent basis. Claim 13 appears to repeat a limitation already included in claim 11, from which claim 13 depends. Specifically, see lines 9-10 of claim 11 and lines 7-8 of claim 13.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent

granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 2, 4, 10, 11, 13, 15, 16, 18, 24, 42, and 43 are rejected under 35

U.S.C. 102(e) as being anticipated by Hakui('521). Noting, in particular, Fig. 4 of Hakui, there is disclosed a torque transmission coupling comprising input-output rotary members 20d, 30d, a frictional engagement section 33, a compression member set comprised of a pair of members 23, 24 capable of performing relative rotation that generates thrust to engage the frictional engagement section, and a rotary actuator M that causes both the members of the compression member set to perform engagement-rotational driving, thus causing the relative rotation. The compression member set comprises a pair of gears 23, 24 and a gear 42, which can be considered a "planetary gear" in the same sense as in applicant's device (e.g., gear 93A), and converts an input from the rotary actuator into compression force to engage the frictional engagement section. Pin 40 and the housing that carries it can be considered the "planetary carrier" to the same extent as arrangement (e.g., at 115A). The rotary actuator in Hakui has a rotation axis aligned with that of the frictional engagement section, as claimed. Hakui provides a press member 31 between the frictional engagement section and the compression member set. The torque transmission coupling of Hakui is disposed in an input side to a rear differential.

Claims 1, 2, 4, 10, 11, 13, 24, 42, and 43 are rejected under 35 U.S.C. 102(b) as being anticipated by Sakakibara et al.('347). The Sakakibara et al. device is a torque

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transmission coupling comprising input-output rotary members 12, 13, a frictional engagement section 15, a compression member set comprised of a pair of members 25, 26 capable of performing relative rotation that generates thrust to engage the frictional engagement section, and a rotary actuator 21 that causes both the members of the compression member set to perform engagement-rotational driving, thus causing the relative rotation. The compression member set comprises a pair of gears 25, 26 and a gear 22, which can be considered a "planetary gear" in the same sense as in applicant's device (e.g., gear 93A), and converts an input from the rotary actuator into compression force to engage the frictional engagement section. Pin 21a and the housing that carries it can be considered the "planetary carrier" to the same extent as arrangement (e.g., at 115A). The torque transmission coupling of Sakakibara et al. can be considered to be disposed in a front-wheel side acceleration shaft, insofar as defined, or an input side to a rear differential, an output side of a transfer device, a propeller shaft between the transfer device and the rear differential, or a rear-wheel side acceleration shaft of a four-wheel drive vehicle (see Figs. 2 and 6-12).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 6, 8, 20, and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hakui('521) in view of Harvey(US 2002/0144876 A1). The Hakui device does not mount the "carrier" to be capable of performing a constant-angle relative rotation, as called for in these claims. Harvey discloses a similar device with an element of the actuator mounted to perform limited relative rotation to indicate a displacement of the element and thus detect torque transmission. It would have been obvious to provide such a detecting arrangement in the Hakui device, the motivation being to provide an indication of torque to facilitate accurate control of motor M.

Claims 15, 16, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sakakibara et al.(347) in view of Puiu et al.('550). In Sakakibara et al. the rotary actuator and the frictional engagement section are not disposed with their rotation axes aligned with each other. In a similar device, though, Puiu et al. provide rotary actuator 78 in alignment with the axis of the frictional engagement device (e.g., see Figs. 2 and 3). It would have been obvious to align the axes of the rotary actuator and frictional engagement device in Sakakibara et al., the motivation being to reduce the radial dimensions of the device.

Claims 6 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sakakibara et al.('347) in view of Harvey(US 2002/0144876 A1). The Sakakibara et al. device does not mount the "carrier" to be capable of performing a constant-angle relative rotation, as called for in these claims. Harvey discloses a similar device with an

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element of the actuator mounted to perform limited relative rotation to indicate a displacement of the element and thus detect torque transmission. It would have been obvious to provide such a detecting arrangement in the Sakakibara et al. device, the motivation being to provide an indication of torque to facilitate accurate control of motor 21.

Claims 20 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sakakibara et al.('347) in view of Harvey(US 2002/0144876 A1) as applied to claims 6 and 8 above, and further in view of Puiu et al.('550). In Sakakibara et al. the rotary actuator and the frictional engagement section are not disposed with their rotation axes aligned with each other. In a similar device, though, Puiu et al. provide rotary actuator 78 in alignment with the axis of the frictional engagement device (e.g., see Figs. 2 and 3). It would have been obvious to align the axes of the rotary actuator and frictional engagement device in Sakakibara et al., the motivation being to reduce the radial dimensions of the device.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rodney H. Bonck whose telephone number is (571) 272-7089. The examiner can normally be reached on Monday-Friday 7:00AM - 3:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles A. Marmor can be reached on (571) 272-7095. The fax phone

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number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Rodney H. Bonck
Primary Examiner
Art Unit 3681

rhb
November 1, 2005